

- 29 -

## CLAIMS

1. A device for transmitting a 3D image, the device having a converter for converting 2D image signals representing a 3D image into image signals representing a 3D image, a transmitter means for transmitting 2D image signals to the converter and the converter in use being adapted to emit the image signals representing a 3D image whereby an observer is able to observe a 3D image represented by the image signals.
2. A device as claimed in claim 1, wherein the converter includes a screen from which the image signals representing a 3D image are able to be emitted.
3. A device as claimed in claim 2, wherein the screen includes an outer surface having a predetermined three dimensional topography.
4. A device as claimed in claim 3, wherein the converter includes wave means for receiving 2D image signals and emitting the 2D image signals from the outer surface as a plurality of image signals in directions corresponding to lines radiating perpendicular to a surface having a three dimensional configuration with a periodic pattern of peaks and troughs.
5. A device as claimed in claim 3, wherein the converter means includes wave means for receiving 2D image signals and emitting the 2D image signals from the outer surface as a plurality of multi-directional image signals together forming a periodic wave pattern.
6. A device as claimed in claim 5, wherein each of the multi-directional image signals radiates from the outer surface in a direction corresponding to part of a travelling wave front of a periodic wave form.
7. A device as claimed in claim 6, wherein the outer surface of the converter includes a plurality of image emitters each for emitting 3D image signals which individually represent part of a 3D image.
8. A device as claimed in claim 7, wherein the image emitters together emit 3D image signals which together represent a whole 3D image.

- 30 -

9. A device as claimed in claim 8, wherein the image emitters are evenly distributed over an emitter surface of the converter.

10. A device as claimed in claim 9, wherein the screen has its outer surface as the emitter surface.

11. A device as claimed in claim 10, wherein the image emitters are adapted to emit image signals in a 3D radial pattern.

12. A device as claimed in claim 11, wherein each image emitter comprises portions of a surface having a 3D topography.

13. A device as claimed in claim 12, wherein the image emitters are physical components having a predetermined geometrical shape which is able to change the direction of 2D image signals passing therethrough to image signals representing part of a 3D image.

14. A device as claimed in claim 14, wherein each image emitter comprises an icon having a part hemispherical shape.

15. A device as claimed in claim 14, wherein each icon has a plurality of radial holes extending therethrough.

16. A device as claimed in claim 15, wherein the radial holes radiate from a virtual geometrical centre of the icon.

17. A device as claimed in claim 16, wherein each icon comprises a plurality of image signal emitting means located at a bottom end of each tube.

18. A device as claimed in claim 17, wherein each image signal emitting means comprises a pixel which emits image signals representing a 3D image upon receipt of 2D image signals representing a 3D image by the converter.

19. A device as claimed in claim 18, wherein the device comprises a screen surface having icons spread evenly thereover with the screen being in the form of a sheet of material formed of a predetermined shape.

20. A device substantially as hereinbefore described with reference to any one of Figures 1 to 4 in

- 31 -

conjunction with Figure 14, 15, 16, 17 and 22 of the accompanying drawings.

Sample	Age	Gender	Height (cm)	Weight (kg)	Body Mass Index (kg/m <sup>2</sup> )	Waist Circumference (cm)	Waist-Hip Ratio	Trunk Flexion Angle (°)	Trunk Flexion Moment (Nm)	Trunk Flexion Force (N)
1	25	Male	175	75	24.2	85	0.85	30	150	150
2	28	Female	165	60	22.0	75	0.80	25	120	120
3	30	Male	180	80	25.9	90	0.88	35	180	180
4	32	Female	170	65	22.6	80	0.82	28	140	140
5	35	Male	185	85	25.0	95	0.90	40	200	200
6	38	Female	175	70	22.3	85	0.85	30	160	160
7	40	Male	190	90	25.5	100	0.92	45	220	220
8	42	Female	180	75	22.9	90	0.88	35	180	180
9	45	Male	195	95	25.0	105	0.95	50	240	240
10	48	Female	185	80	23.2	95	0.90	40	200	200